

PROJECT NUMBER: 1706
PROJECT TITLE: Thermal and Combustion Processes
PROJECT LEADER: D. B. Losee
PERIOD COVERED: October, 1987

I. OPERATIONS SUPPORT (P. Henderson)

A. Objective: Establish changes that occur in inks as a function of age.

B. Results: Substantial differences in viscosity are evident between a fresh ink and one which is six months old. Their viscosities were determined using a Brookfield viscometer equipped with T-bar spindle. These same inks were tested on an Inkometer (an industry standard instrument) to determine their operating tacks. These two inks also revealed differences in their operating characteristics as determined on the Inkometer.

C. Plans: Further evaluate Inkometer.

II. OPERATIONS SUPPORT (B. Losee)

A. Objective: Establish if particle size analysis provides information on tipping adhesives which can be related to their operating characteristics.

B. Results: Several tipping adhesives were submitted to Brookhaven Instrument Company for particle size analysis. Both a light scattering technique and centrifugation technique were used for this analysis. The latter technique, DCP, involves photosedimentation in a disc centrifuge. This technique shows promise in discriminating among adhesives which have particle sizes that change in time.

C. Plans: Further evaluate the DCP instrument and determine how changes in particle size can affect operating characteristics of tipping adhesives.

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